

Figure 1

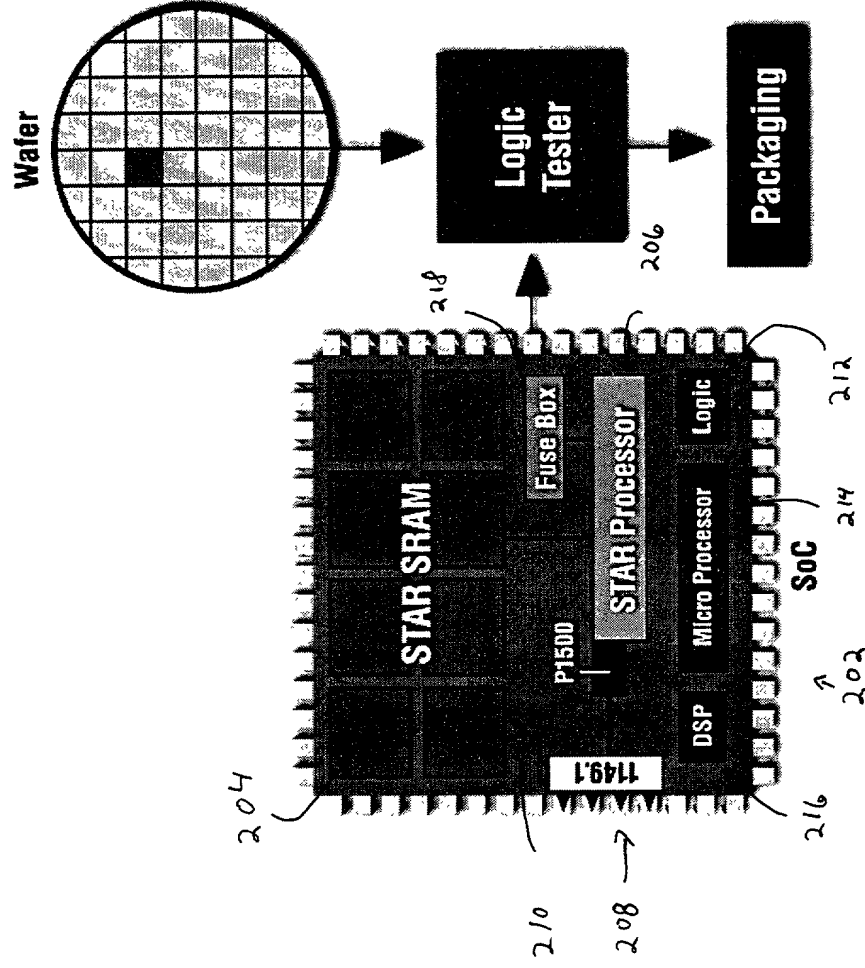


Figure 2a

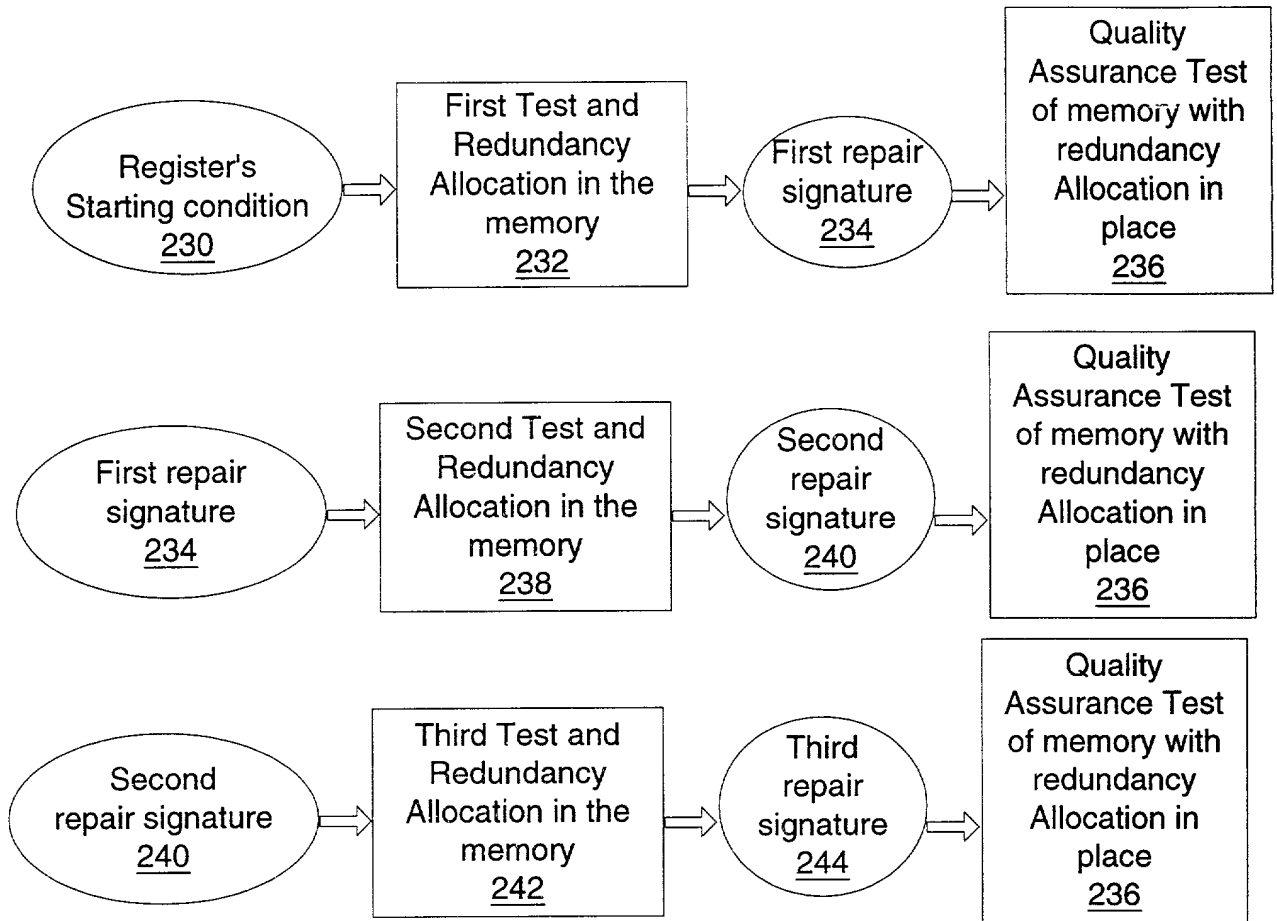


Figure 2b

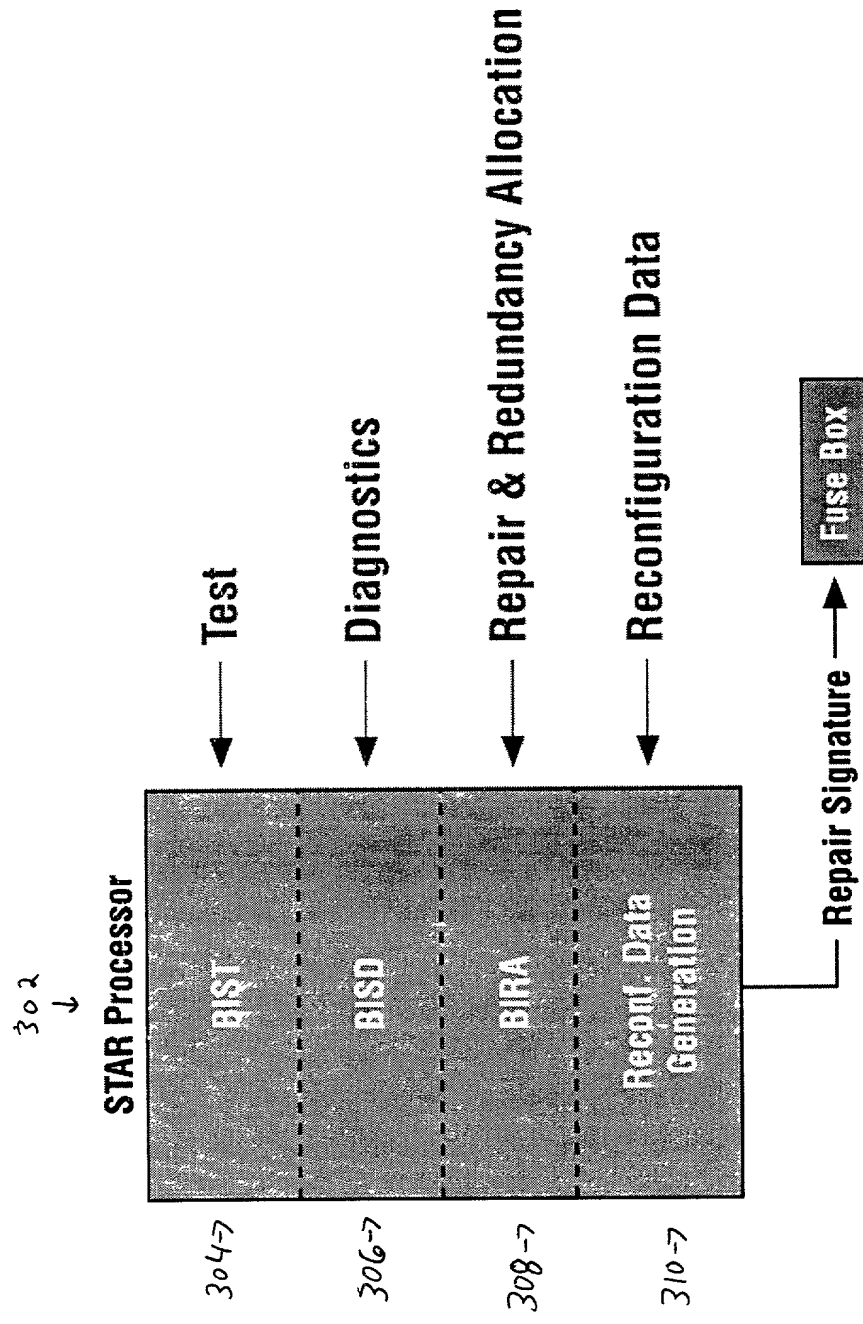


Figure 3

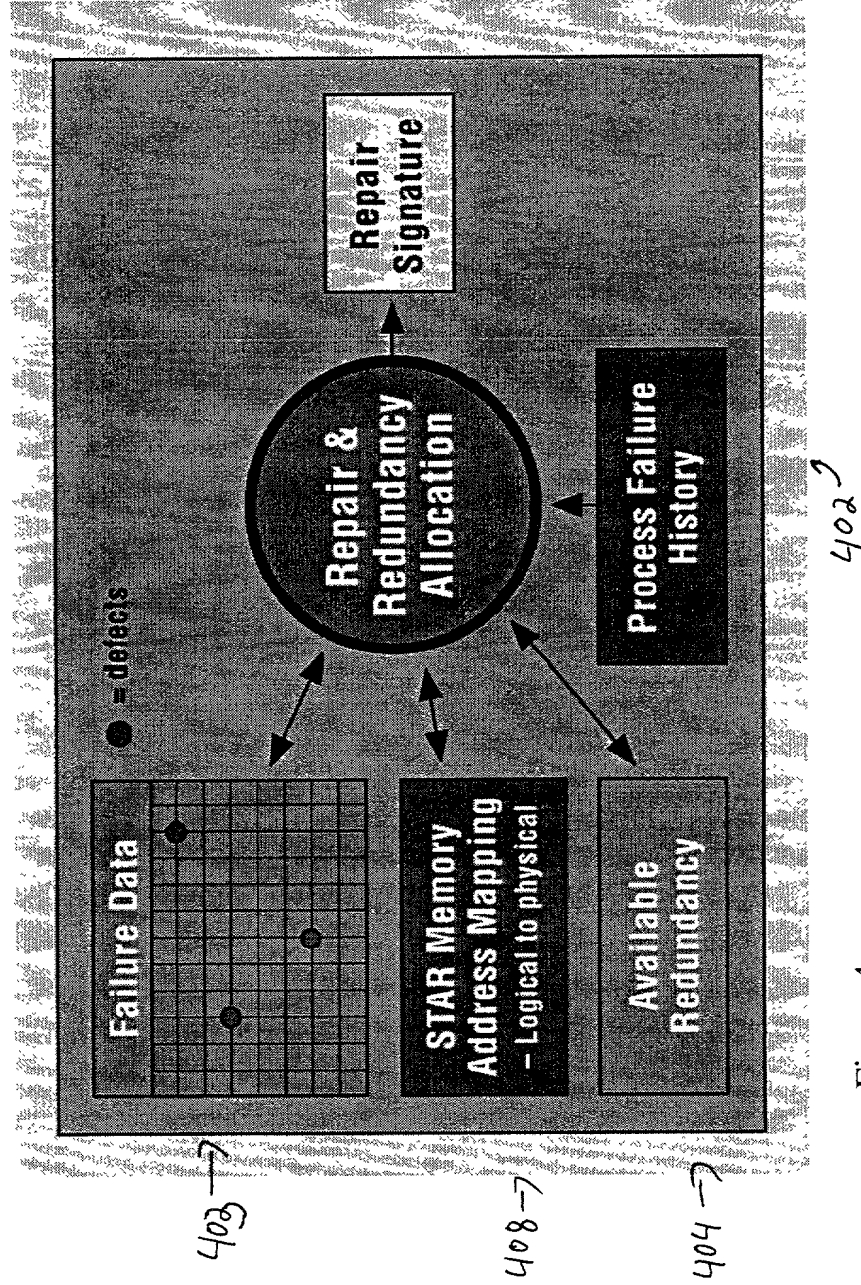


Figure 4a

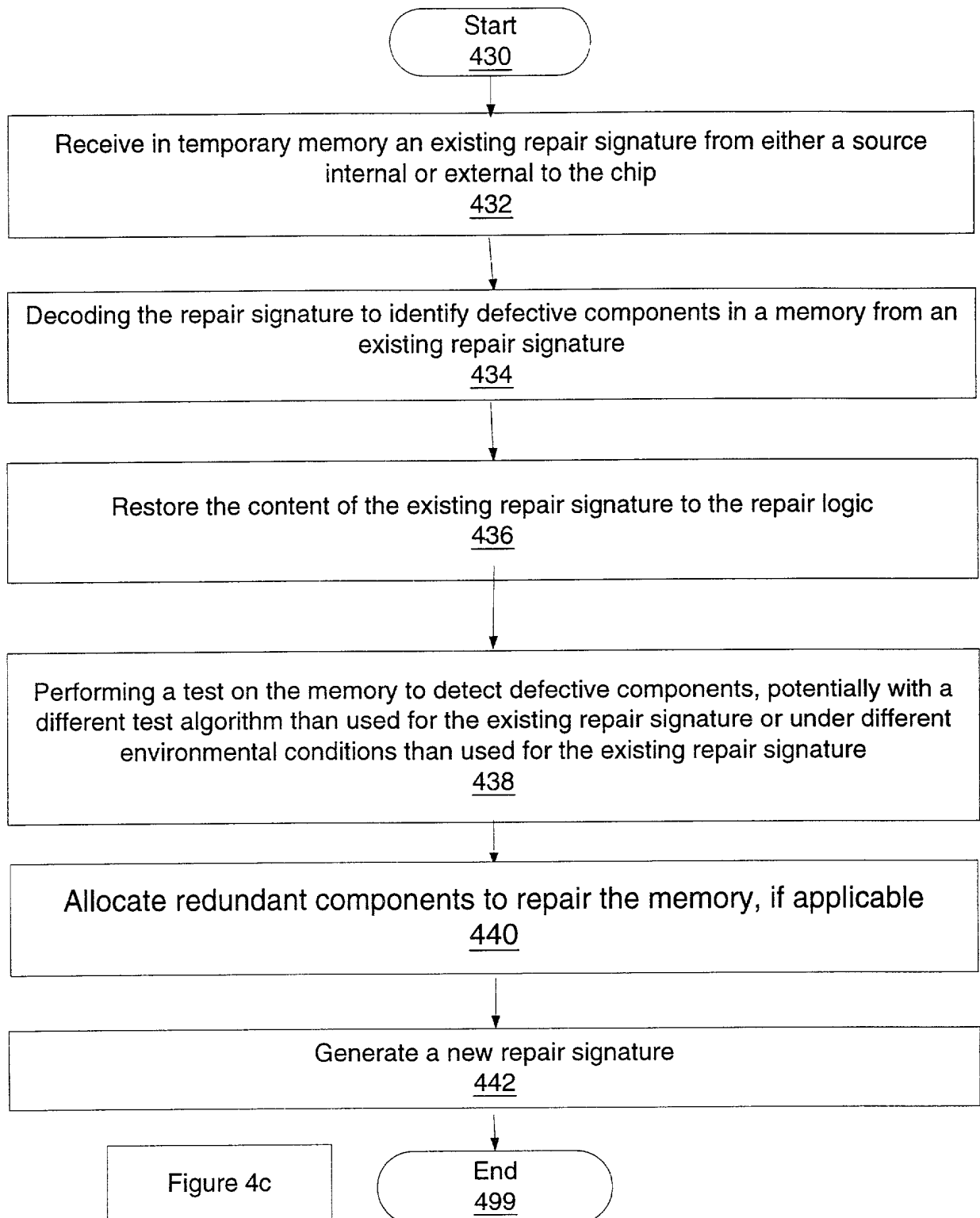
410 ↘

0010100101000	001001000	01000	001001000	0010100101000
Upper bank Redundant column	Upper bank Redundant Row	Status Bits	Lower bank Redundant Row	Lower bank Redundant column
412 ↗	414 ↗	416 ↗	418 ↗	420 ↗

422 ↘

0010100101000	001001000	01000	001001000	0010100101000	0100
Upper bank Redundant column	Upper bank Redundant Row	Status Bits	Lower bank Redundant Row	Lower bank Redundant column	SubI/O Status Bits
					424 ↗

Figure 4b



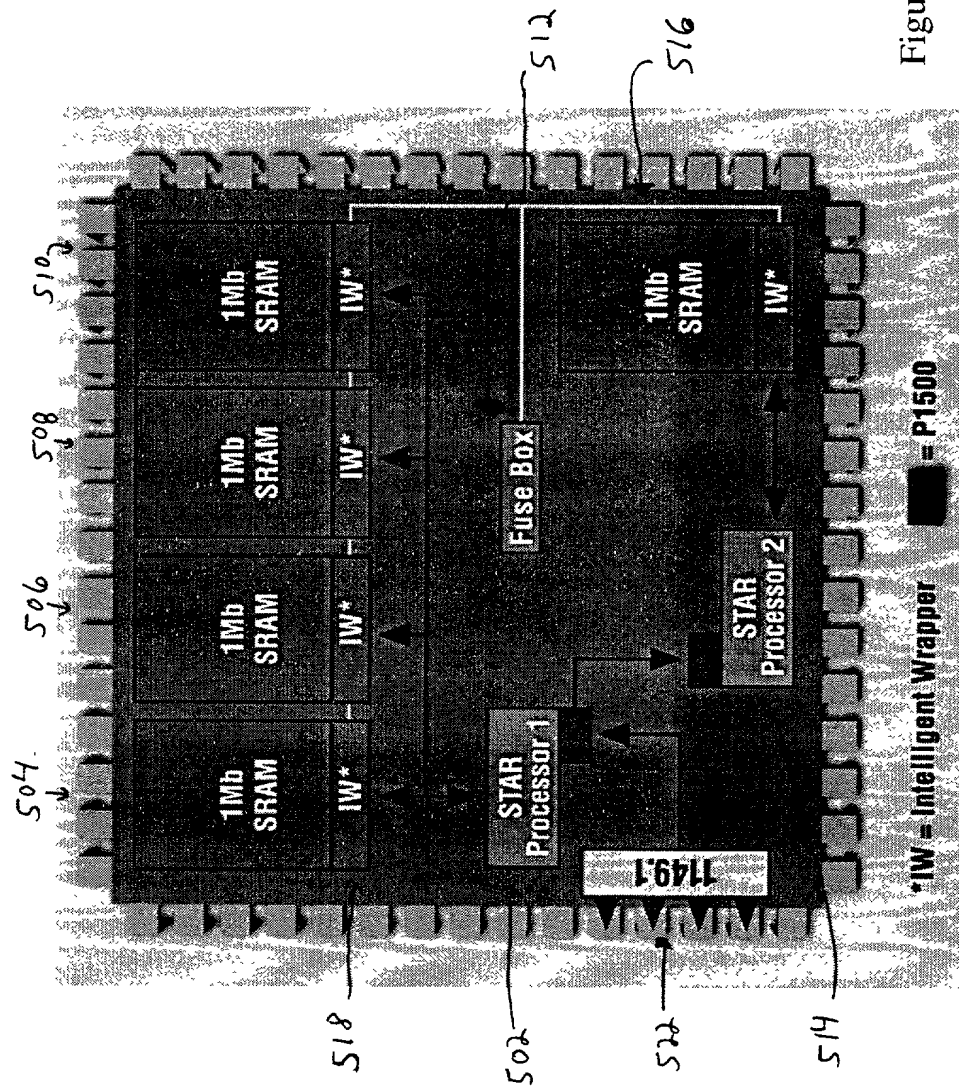


Figure 5

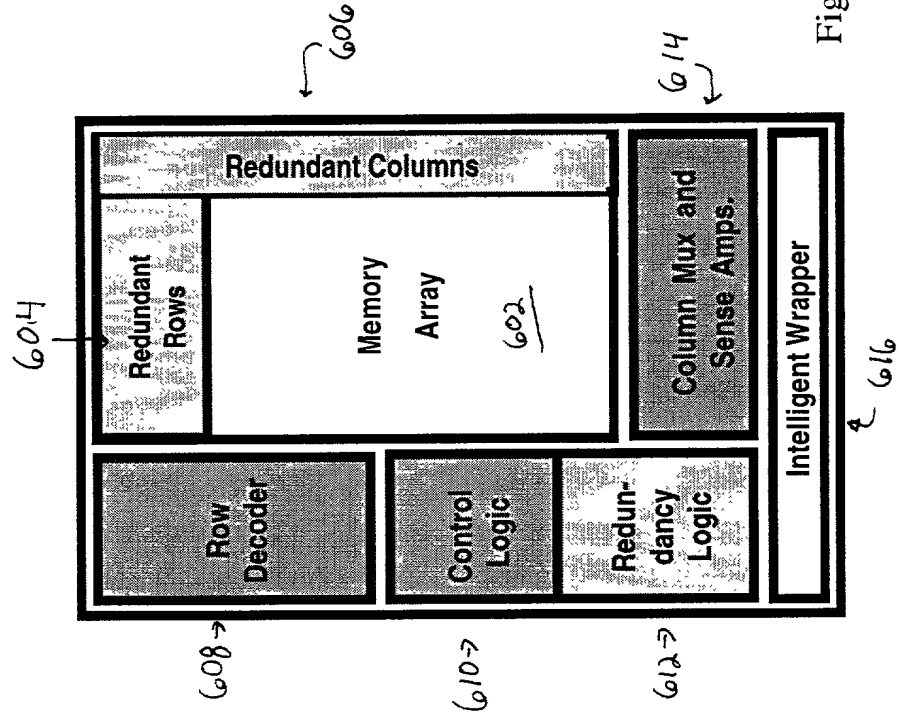
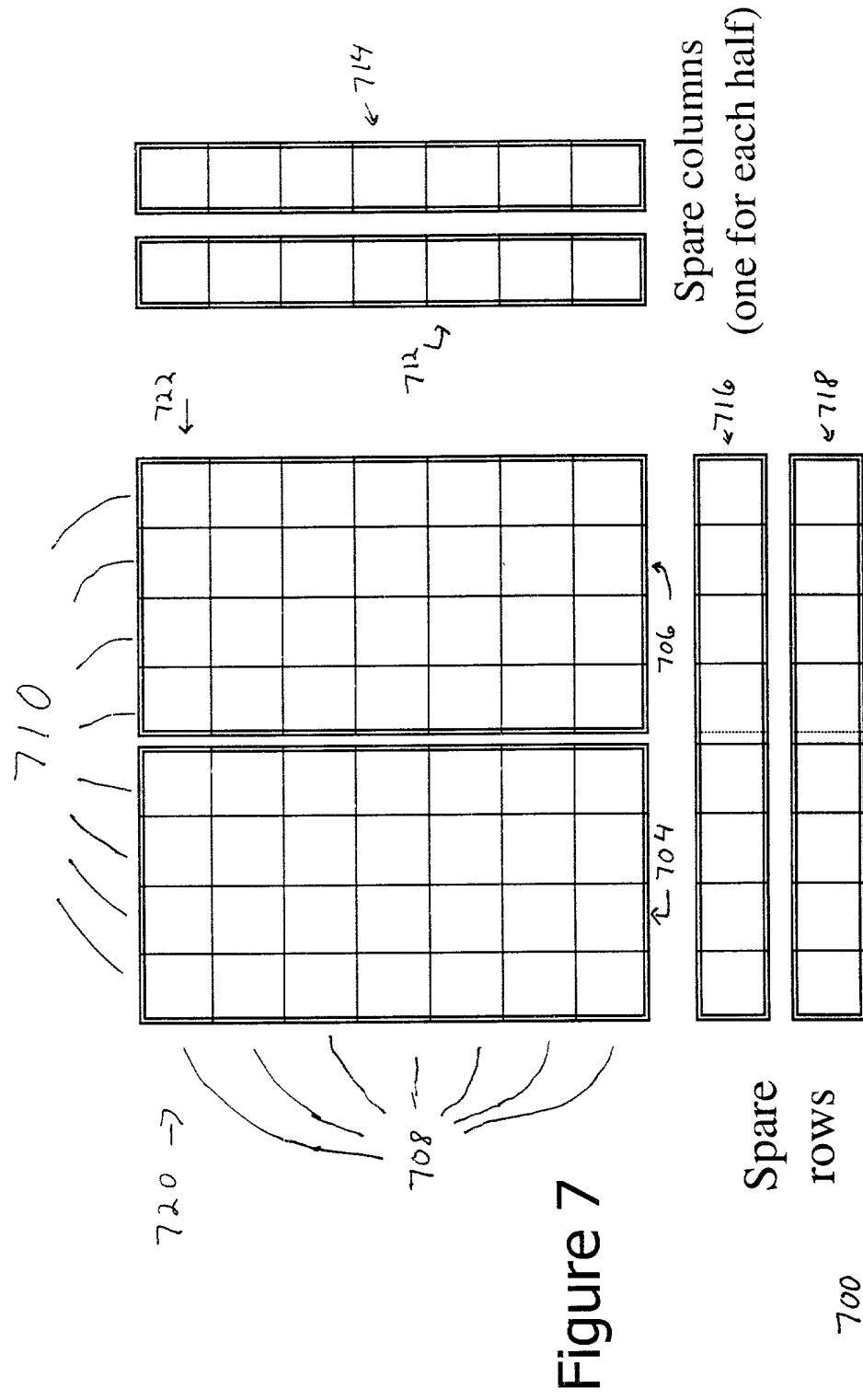


Figure 6



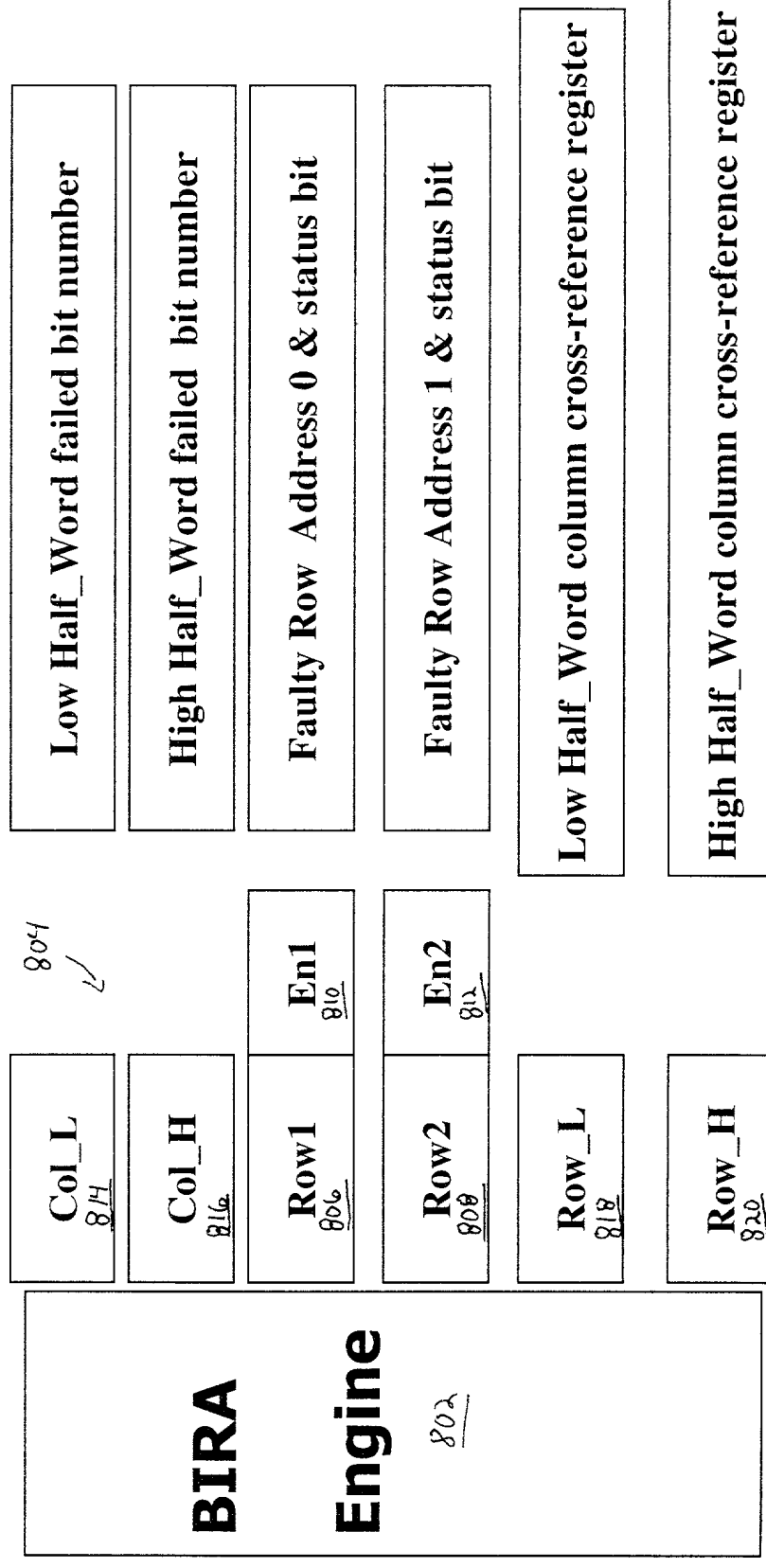


Figure 8

Four Passes Algorithm in Order to Improve Results in the Case of Single Faults in the Row.

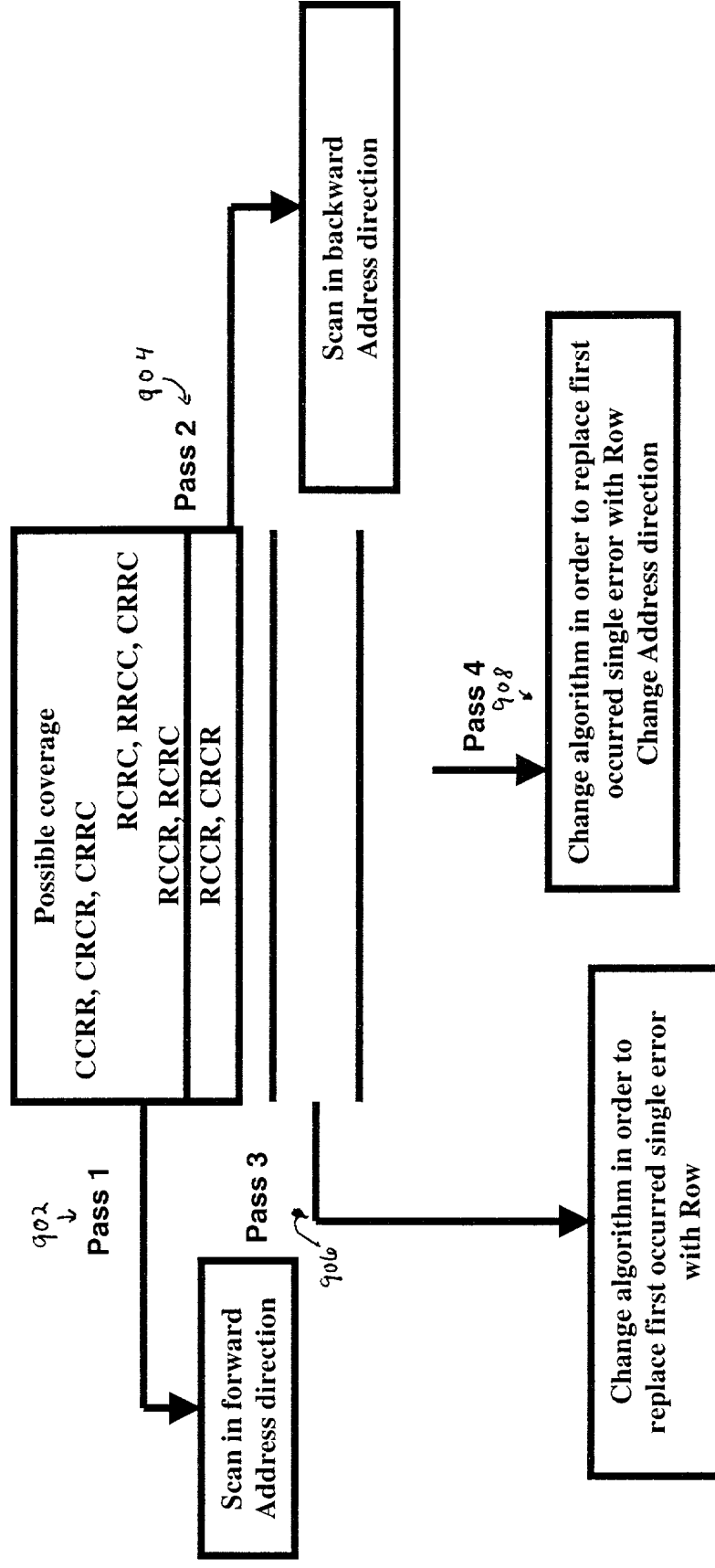


Figure 9

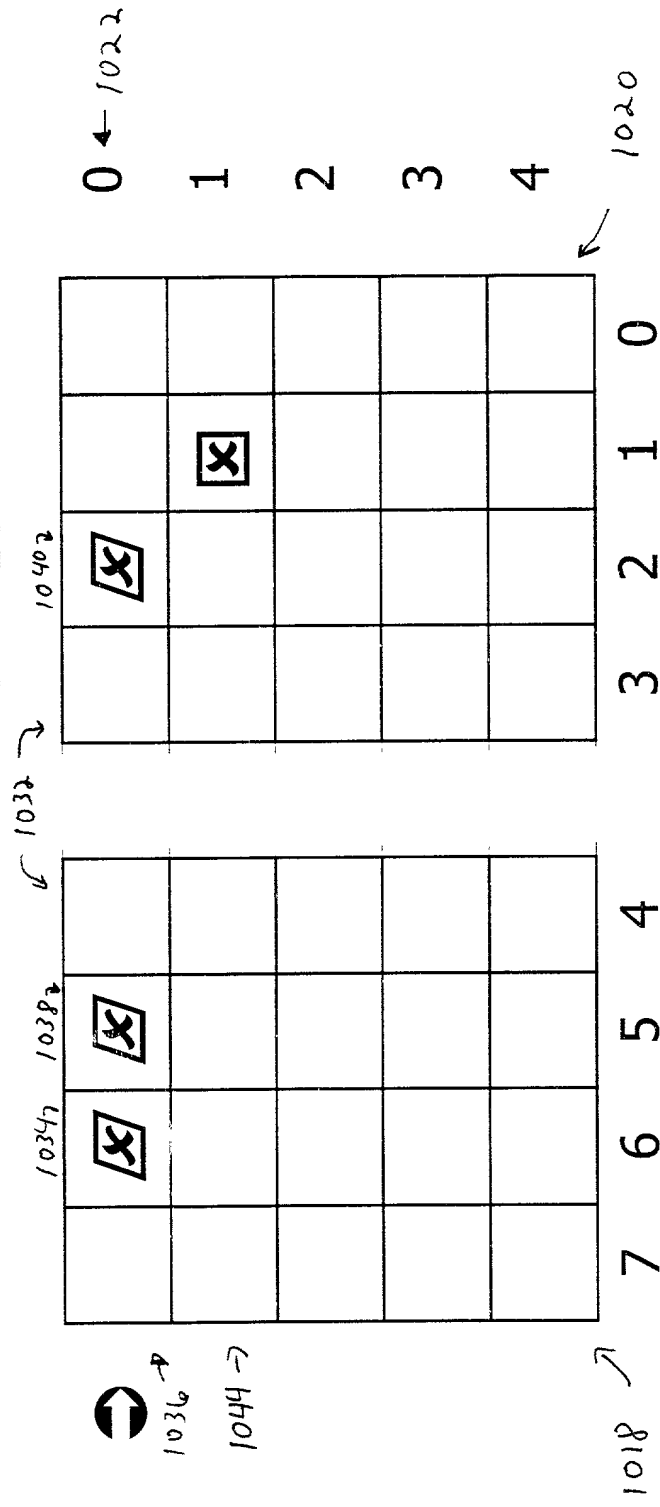
Table 1. Demographic characteristics of the study population	
Age (years)	Mean (SD)
Male	50.5 (10.5)
Female	51.5 (10.5)
Marital status	
Married	75.5 (10.5)
Single	24.5 (10.5)
Divorced	1.0 (10.5)
Widowed	1.0 (10.5)
Education (years)	Mean (SD)
Male	12.5 (2.5)
Female	12.5 (2.5)
Occupation	
Professional	35.5 (10.5)
Managerial	25.5 (10.5)
Technical	15.5 (10.5)
Service	10.5 (10.5)
Unemployed	13.0 (10.5)
Income (USD/month)	Mean (SD)
Male	1,200 (200)
Female	1,200 (200)
Health status	
Good	75.5 (10.5)
Fair	24.5 (10.5)
Poor	1.0 (10.5)
Smoking status	
Smoker	35.5 (10.5)
Non-smoker	64.5 (10.5)
Alcohol consumption	
Regular	15.5 (10.5)
Occasional	35.5 (10.5)
Never	49.0 (10.5)
Family size	Mean (SD)
Male	3.5 (1.5)
Female	3.5 (1.5)
Number of children	Mean (SD)
Male	2.5 (1.5)
Female	2.5 (1.5)
Number of siblings	Mean (SD)
Male	2.5 (1.5)
Female	2.5 (1.5)
Number of parents	Mean (SD)
Male	2.5 (1.5)
Female	2.5 (1.5)
Number of grandparents	Mean (SD)
Male	2.5 (1.5)
Female	2.5 (1.5)
Number of great-grandparents	Mean (SD)
Male	2.5 (1.5)
Female	2.5 (1.5)
Number of great-great-grandparents	Mean (SD)
Male	2.5 (1.5)
Female	2.5 (1.5)

[illegible]

1004→	Col_L	0	0	0	0	0	Col_H	0	0	0	0	1002↙
1008→	Row_L	0				0				Row_H		1006↙
1012→	Row 1	0				0				Row2		1010↙
1016→	En1	0				0				En2		1014↙

Start condition for BIRA registers

Figure 10



Col_L	0	0	0	0	Col_H	0	0	0	0
Row_L	0				Row_H	0			
Row1	0				Row2	0			
En1	1				En2	0			

Multiple errors in Row fix with Row1

Figure 11

10427

0 ≤ 1022

1 $\leftarrow 1024$

2

3

0

2

3

4

6

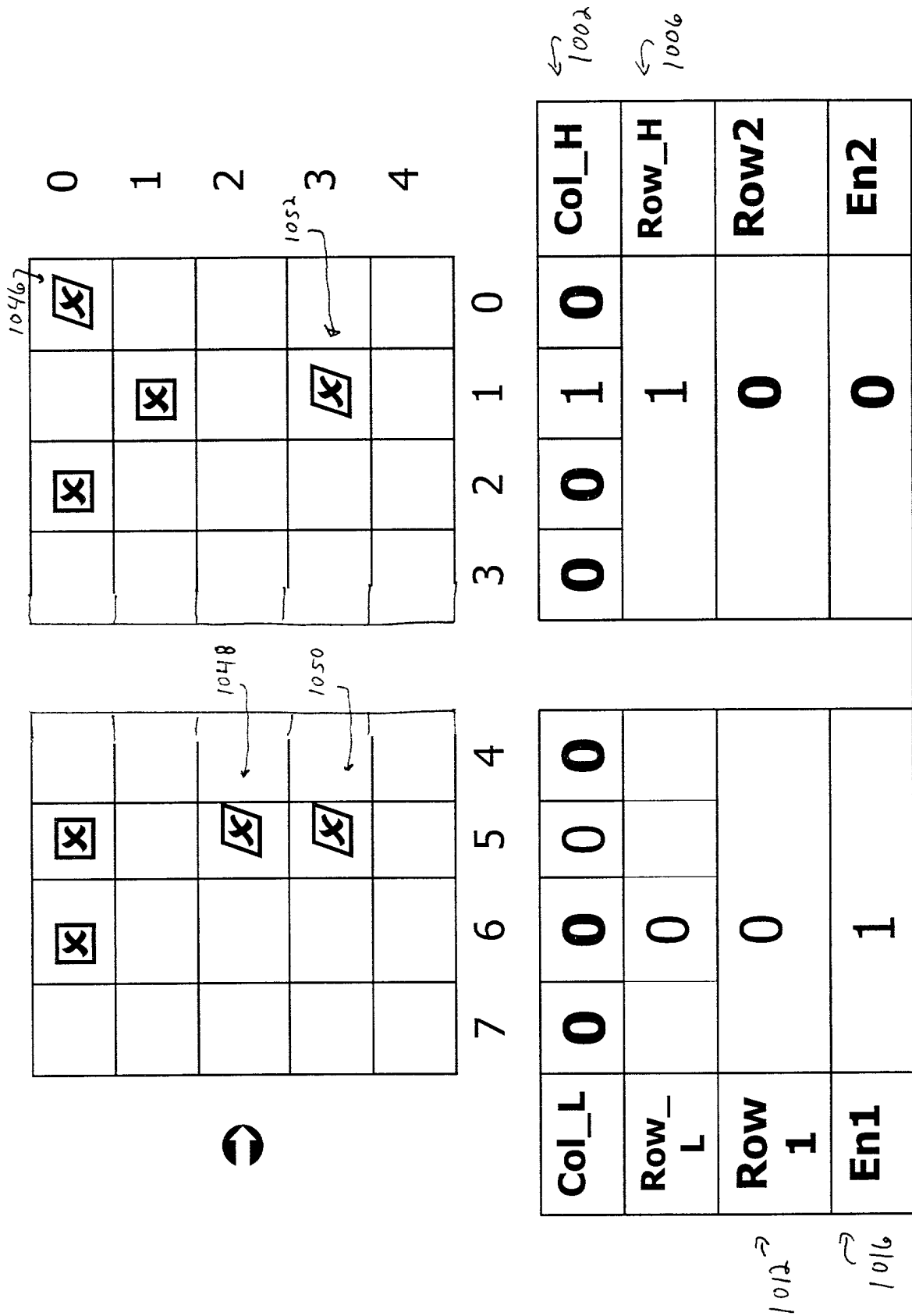
7

1002

1006
↪

Col_L	0	0	0	0	0	0	0	0	Col_H
Row_L	0			0			Row_H		
Row 1	0			0			Row2		
En1	1			1			En2		

Cover single error with column, register connectivity Row_H



Load content of previous signature into Registers Figure 13

error at the root

↙ 1032 ↘

	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>		
	<input checked="" type="checkbox"/>		

7 6 5 4



↙ 1048 ↘

↙ 1050 ↘

	<input checked="" type="checkbox"/>		
		<input checked="" type="checkbox"/>	
		<input checked="" type="checkbox"/>	

3 2 1 0

↙ 1020 ↘

→ 1004

→ 1008

→ 1012

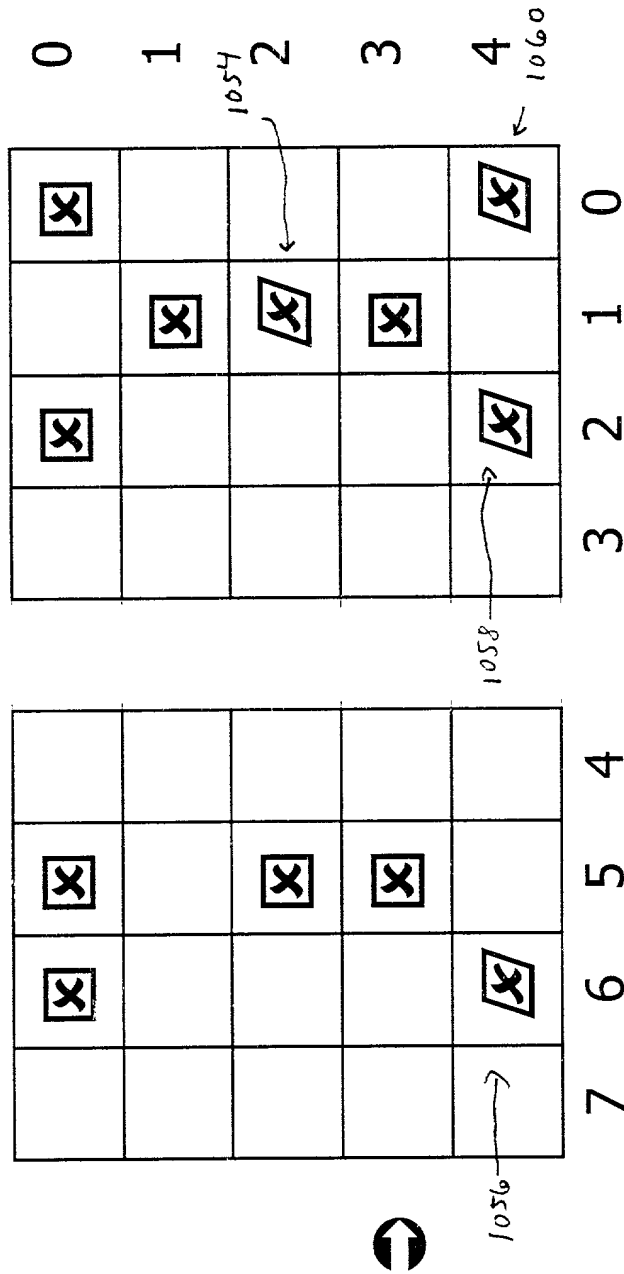
Col_L	0	0	1	0
Row_L		2		
Row 1		0		
En1		1		

↙ 1002 ↘

Col_H	0	1	0
Row_H		1	
Row2		0	
En2		0	

Cover single error with column, register connectivity Row_L

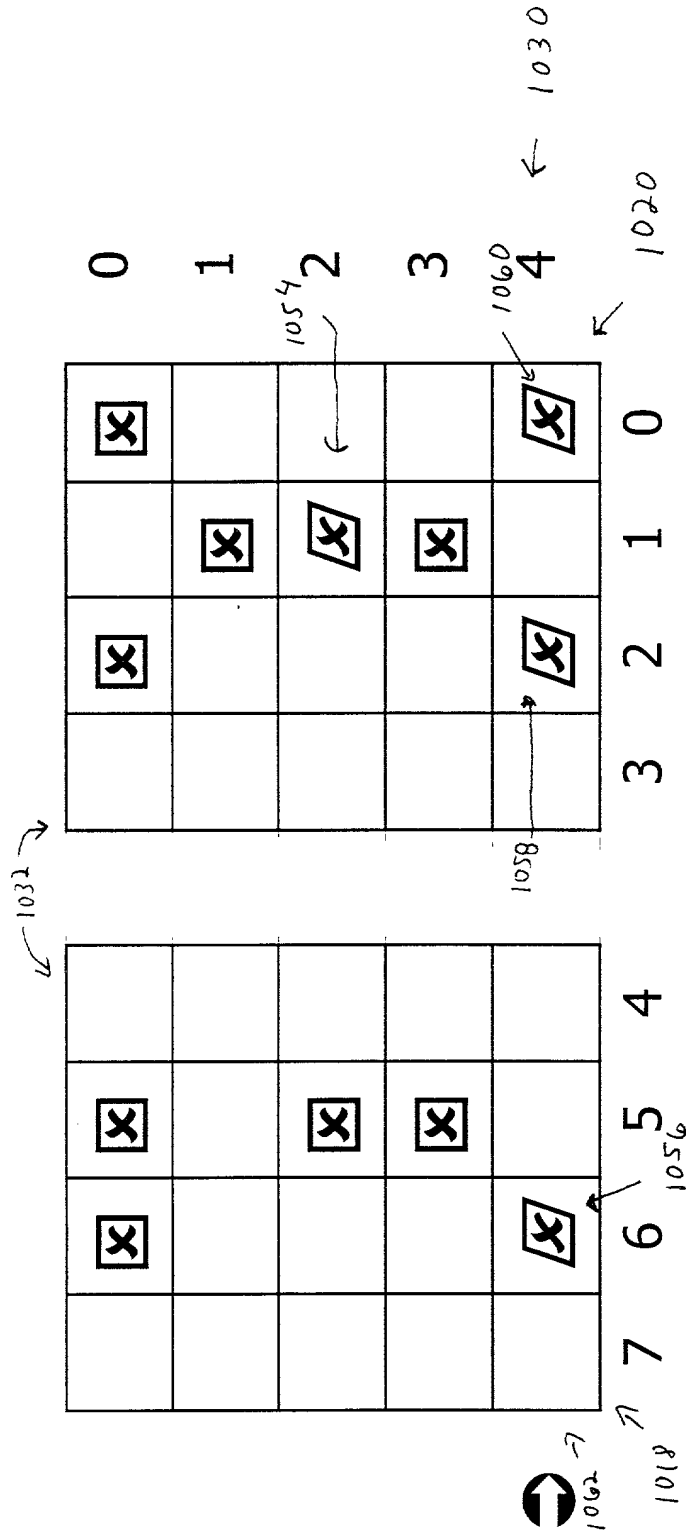
Figure 14



Col_L	0	0	1	0	Col_H
Row_L	2				Row_H
Row 1	0				Row 2
En1	1				En2

Load content of previous signature into Registers

Figure 15



Col_L	0	0	0	1	0	Col_H	0	1	0
Row_L	2					Row_H	1		
Row 1	0					Row2	4		
En1	1					En2	1		

Multiple errors in Row fix with Row2

Figure 16